

STRATEGY AND PLAN FOR
A NATIONWIDE TECHNOLOGY TRANSFER NETWORK
TO ENHANCE PRIVATE AND NONFEDERAL USE
OF NEWLY DEVELOPED TECHNOLOGY
FROM NASA AND OTHER SOURCES

Volume 2: The Proposed Plan for NASA

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Submitted to:

Technology Utilization Division
Office of Commercial Programs
National Aeronautics and Space Administration

(NASA-CR-182817) STRATEGY AND PLAN FOR A
NATIONWIDE TECHNOLOGY TRANSFER NETWORK TO
ENHANCE PRIVATE AND NONFEDERAL USE OF NEWLY
DEVELOPED TECHNOLOGY FROM NASA AND OTHER
SOURCES. VOLUME 2: THE PROPOSED PLAN FOR

N89-71132

Unclas
00/85 0141500

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June 30, 1986

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STRATEGY AND PLAN FOR A NATIONWIDE
TECHNOLOGY TRANSFER NETWORK

Volume 2: The Proposed Plan for NASA

EXECUTIVE SUMMARY

Any program plan for the development of a nationwide network for technology transfer will be subject to change dependent upon the political climate and implications which will have a direct impact upon the participants. These include: (1) the Federal government, i.e., the Executive Branch, Congress and Federal agencies; (2) the state governments; and to a lesser degree, (3) the industrial sector; and (4) the academic community.

1. Technology for Industry

NASA's Industrial Applications Centers (IACs) have two connections which deserve attention in the plan. The first is the IACs' relationships with the Federal Laboratory Consortium (FLC). The plan should take advantage of the IAC-FLC trial relationship under the leadership of the FLC Far West Regional Coordinator and the Southern California NIAC. In addition, it may be timely for one of the four NASA's TUO's located in the southeastern U.S. to assume a position of leadership as FLC Regional Coordinator. The opportunity exists.

The IAC-State program relationships are the second set of connections deserving attention. These can be divided into three major categories for follow-up action and implementation in the NASA plan:

a. States ready for continued or new development of potential network relationships. There are 26 states in this category, some of which have existing ties with IACs, STACs and STRCs.

b. Another nine states already have existing effective network relationships with IACs and deserve close attention and evaluation in FY 1987 to determine if their experience and methods can be applied to others.

c. Finally, there are fifteen (15) remaining states which should be monitored in FY 1987 for the possible development of network capabilities later in FY 1987 or FY 1988, and for the determination of the most suitable IAC tie-in.

The major purposes of the linkages between IACs and state-supported activities (in category a. above) are covered in detail. Similarly, category b. states are addressed with respect to IAC product and system development activities. Finally, major issues requiring resolution are detailed for states under category c.

2. Technology for the Public Sector

As noted in Volume 1, an important aspect of NASA's plan should address two exploratory projects, one each at the state and local levels.

The first is the NASA, CSG and NASA/UK TAP agreement which is under negotiation and is at the state level. Since NASA/UK TAP is already addressing the needs for technological assistance to small cities and towns, NASA should offer the opportunity to PTI to effect a cooperative relationship between NASA/UK TAP and the National League of Cities and the International City Managers' Association, which PTI represents. Most certainly, NASA should include in its plan effective and simple procedures for communicating with the major national associations of state and local governments, e.g., NGA, NCSL, USCM, NLC, NACO, NATTO, CSPO and NASDA. Considerable progress and recognition can be achieved if the Director of the NASA TU Program becomes a regular Federal contributor to the deliberations of NGA's Working Group on Applied Research.

3. Reverse Technology Transfer

Within the NASA plan, an inventory should be conducted in early FY 1987 of the technical programs being carried out by the state-funded centers of excellence (i.e., state/university/industry funding pools). When completed, this inventory should be reviewed by NASA to determine which programs are best suited both for applications of NASA technology, and for the possible cooperative development of additional new technologies needed by NASA's mission programs.

4. Additional Recommendations

a. NASA must recognize the apparent conflicts in the roles of IACs, namely, (1) each IAC's product capability is primarily geared to the industry's needs in its territory; and (2) a particular IAC's networking opportunities and capabilities may not be confined to its immediate region. NASA's plan must include a strong effort to encourage cooperation and minimize competition between IACs.

b. NASA should resolve at an early date the somewhat duplicative remote sensing roles of the NASA TAC at Albuquerque and the Space Remote Sensing Commercialization Center at NSTL.

c. All IAC directors should explore, in FY 1987, the risks, benefits, alternatives and implications of alternative long-term revenue sources beyond direct funding support from NASA.

d. NASA should consider making special efforts to serve three major regional areas which appear to have excellent prospects for growth and for becoming major factors in the TU Program's nationwide thrust. These are:

- (1) the Central Gulf Coast, where the feasibility of a locally-based IAC at a historically minority university is in the process of being established with NASA support, but where existing industry needs call for immediate IAC services. Initial networking should be undertaken by an existing IAC or STAC, but with the clear understanding that any relationships established with Louisiana and Mississippi will be transferred to the new IAC after it is established.
- (2) the Missouri Valley, where the State of Missouri has developed comprehensive sets of programs to upgrade its technological strength;
- (3) the Upper Mississippi Valley, where Minnesota, the hub, has adopted a centrally coordinated, but uniquely private sector based, approach to stimulate industrial technology improvement.

VOLUME 2

Introduction

This volume sets out the contractor's proposed plan for NASA and its associated contractors in the Technology Utilization program to implement during Fiscal Years 1987 and 1988, and to some extent beyond that, the strategy proposed in Volume I of this report on the development of a nationwide network for technology transfer.

It is essential to understand that this plan is subject to a "rolling revision" based on four sets of factors, at the least. Those four sets of factors are:

- year-to-year action relative to Federal program authorities and budgets, including action within the Executive Branch and by Congress;
- year-to-year action by the 50 state legislatures and governors on parallel matters;
- experience in the negotiations and discussions needed to implement this plan; and
- elections for state and national offices, especially in the Fall of 1986.

Program plans for the development of networked cooperation are not blueprints. They are, at best, guides to identifying those areas in which action should be most constructive and mutually effective for all concerned.

This plan proposes to implement the strategy recommended in Chapter V of Volume I, insofar as NASA is concerned, through specific activities aimed at developing: (1) IAC links with the Federal Laboratory Consortium (FLC) and with state-supported business and industry activities; (2) NASA links with state and local government-based efforts to aggregate state and local technology needs in order to enhance transfer for the improvement of government operations; and (3) relationships which will have longer term payoff, involving linkages between other NASA development programs and the technology-development-related "centers of excellence" supported by states and other Federal agencies. Finally, it will recommend miscellaneous actions, related to the above, which the contractor believes will enhance the NASA technology utilization program and its investments.

Much of the information used to formulate this plan, beyond but consistent with that which is summarized in Volume I, was provided on a non-attribution basis by a wide range of participants in that portion of the network which exists already.

Chapter I

Industrial Applications Center (IAC) and Federal Laboratory Consortium (FLC) Relationships

The time is ripe to proceed with the more extensive linkage of IAC access and dissemination activities with the state-sponsored technical assistance and information programs for industry, consistent with the restructuring of the IAC network and the redefinition of particular IAC roles. This can readily extend to developing formal avenues for the communication of state-identified industry technology needs to the NASA Technology Applications Teams, to NASA Field Centers, and other FLC members, together with information on the nature and extent of the states' institutional resources for addressing those needs. While these efforts are in progress, contacts and information can and should be developed to serve as a base for the follow-up development of cooperative NASA-state-industry-university programs in disciplines of interest to NASA's technology development programs.

As discussed in Volume I, the IACs are in a unique position between industrial users of new technology and their state-sponsored technical help, on the one hand, and Federal technology developers, on the other. The strengthening of the network role of the IACs thus has the two major dimensions outlined in Chapter V of Volume 1: with the Federal laboratories

and with state-sponsored industry-assistance programs.

1. FLC Linkages

Preliminary evaluation of the IAC-FLC trial relationships conducted in 1985 suggests that extension of this relationship has merit. FLC has provided for negotiation of this extension under the leadership of its Far West Regional Coordinator. NASA should negotiate in good faith, with the Southern California NIAC providing the front-line interface, based on its role and experience in the earlier experiment, supported and assisted by all IAC directors, by TU program management at NASA Headquarters, and by a follow-on contractor to this study. A reasonable target seems to be the development of mutually agreeable referral-response protocols by May 1987, at the latest.

NASA also has the opportunity to have its Field Center Technology Utilization offices participate in the on-going activities of the FLC, including possible service in regional or national offices. A major current opportunity exists to provide a Regional Coordinator for the FLC for the southeastern U.S. which we believe should be filled by one of the four NASA TUOs in that region.

2. IAC-State Program Relationships

This is the most complex portion of the plan, and the one in which the plan is most exposed to the four variables identified in the Introduction to this volume. Nevertheless, based on the already expressed interest of key state

officials and the existence of state-sponsored program activities appropriate for networking, three sets of relationships emerge for early emphasis:

a. States which appear to be ready for the continued or new development or reinforcement of network relationships (with appropriate IACs in parentheses) during FY 1987 (26, in total):

Vermont (Pitt NIAC)
Rhode Island (Pitt NIAC, STAC, NERAC or USC NIAC)
Connecticut (Pitt NIAC, NC/STRC, NERAC or STAC)
New York (Pitt NIAC, STAC, NERAC or USC NIAC)
Pennsylvania (Pitt NIAC)
Ohio (Pitt NIAC and/or ARAC)
Maryland (Pitt NIAC)
Virginia (Pitt NIAC and NC/STRC)
West Virginia (Pitt NIAC)
South Carolina (STAC)
Georgia (STAC)
Tennessee (STAC)
Mississippi and Louisiana (STAC in the short term, looking to a possible phaseover to a local, new IAC within two or three years)
Illinois (ARAC)
Michigan (ARAC)
Missouri (ARAC, as a base for a new capability to reach small midwestern industry)
Texas (KIAC)
New Mexico (TAC)
Utah (TAC and STAC)
Montana (TAC)
Arizona (TAC)
Oregon (USC NIAC)
Hawaii (USC NIAC)
Washington (USC NIAC)
Idaho (USC NIAC)

b. Nine states with existing apparently effective network relationships warranting monitoring and evaluation during FY 1987 (with existing IAC ties in parentheses):

Delaware (Pitt NIAC)
Florida (STAC)

Alabama (STAC)
Arkansas (STAC)
Indiana (ARAC)
Kentucky (UK/TAP)
Oklahoma (KIAC)
Iowa (USC NIAC)
Nebraska (USC NIAC)

c. Fifteen states for NASA TU program management and the follow-on contractor to this study to monitor during FY 1987 for possible development of capabilities to support new network relationships during FY 1987 or FY 1988 (IACs to be determined):

Maine
Massachusetts
New Jersey
Hawaii
Kansas
California
Colorado
New Hampshire
Wisconsin
Minnesota
North Dakota
South Dakota
Wyoming
Nevada
Alaska

Figure 1 outlines some of the major purposes of the linkages between the IACs and state-supported activities, as a framework for agreements.

Figure 2 outlines several major areas in which IAC product and system development activities will be needed to support expanded outreach to industry in cooperation with the states.

Figure 3 outlines some of the major issues which may need to be addressed in each linkage.

CONTENTS OF IAC-STATE AGREEMENTSFor the StatesInformation Support

- Access to IAC Databases
- Technical Assistance in Searching
- Targetted Information On Aeronautics and Space Technologies, Program and Commercial Opportunities

Brokerage

- Access to NASA Field Center Specialists
- Access to FLC Members (Outside the State)
- Access to Other Technical Resources (Outside the State) - Including CCDSS.

For NASA and IACSClientele Representation

- More Widespread Dissemination
- Identification of Potential New NASA Program Participants

"Intelligence"

- Industry Technology Needs and Priorities
- Financial, Management and Technical Resources for Other Clients/Applications Projects

IAC PRODUCT DEVELOPMENT/CROSS-SERVICING NEEDS

Need

Training of Personnel in State-supported
Centers re: available products and search
and access methods

Remote electronic access/telecommunications
links and services

Real-time response capability (for remote
sites)

Low-cost services supporting state centers'
technical assistance to entrepreneurs
and innovating firms

Ability or willingness to develop these
services and "sell" them

Creative alternatives for covering IAC
charges for search and assistance related
to new venture development (e.g., from
seed capital, as part of what investors
underwriters, with related educational
information for both the ventures and
and the capitalist)

Where Needed

All state centers fronting
for the NASA TU system

All states having centers
which can front for the
NASA TU system

Most high-priority states

All states having such centers

IACs which don't offer them

IACs without such payment
alternatives

LINKING IACS WITH STATE-BACKED PROGRAMS
IN TECHNOLOGY FOR INDUSTRY

Some Issues to be Addressed

FINANCIAL:

Front-end capitalization
Client subsidies
Sustaining operations
Effect (Drain?) due to direct
IAC-Industry sales

TECHNOLOGICAL:

Means of communication

INSTITUTIONAL:

Turf
Leadership

PROGRAMMATIC:

Available services
Information on services
Market interference/cooperation

SPECIAL CONCERN:

National role (NASA, SBA, EDA, FLC)
Small & Minority Business

Chapter II

State and Local Use of Aerospace Technology

NASA can most readily continue its history of leadership in the application of Federally-sponsored technology to state and local needs through cooperation in two specific exploratory projects, one on the state and one on the local level.

On the state level, it can proceed to negotiate and implement a pending agreement (Appendix A) involving NASA with the Council of State Governments through the NASA/University of Kentucky TAP. The expanding research program of the CSG, including a new institute for science and technology, places CSG in a position to serve as a focal point for the market aggregation of state government needs for new technology, and as a source of guidance in the adaptation and further development of the technology which can address those needs. It would be well to approach the development of relationships under this prospective agreement in a careful, restrained manner. It should require no new FY 1987 resources. In the expected event that one or more prospective Applications Engineering Projects, or similar activities, are defined during this next year (e.g., in dam safety or another currently significant state issue), they could be phased into the FY 1988 and 1989 programs not only of NASA but of other participants (in the case of dam safety, possibly including the new center for commercializing remote sensing, at NSTL).

On the local level, the NASA/UK TAP has one of the few programs in the nation which is effective in providing technological assistance to small cities and towns. Public Technology, Inc., (PTI), the most effective organization in providing such services to cities nationwide, has focused on services to the larger cities and urban counties -- but is interested in extending and expanding its capabilities to smaller cities. Priority should be given to affording PTI -- which is a service bureau for the National League of Cities and the International City Managers' Association -- the opportunity to define a cooperative relationship which will extend the utility of the NASA/UK TAP capability to small cities across the country, and help PTI develop a small city service capability.

At the same time, the Director of the NASA/UK TAP should be encouraged in his efforts to develop cooperative, mutual support relationships with the other IACs.

In all of these relatively short-term state and local outreach efforts, it is essential that all parties to the negotiations realize that the funding climate today is not that of the late 1960's and the 1970's, when Federal technology assistance to state and local governments received its initial impetus. State and local officials and their representatives must be expected to bear a major portion of the responsibility for finding and acquiring the needed funds.

For the longer term, NASA would do well to develop a simple procedure for routinely advising the major national associations of state and local policymakers of the agency's efforts in behalf of their governments. This would include the National Governors' Association, the National Conference of State Legislatures, the U. S. Conference of Mayors, the National League of Cities, the National Association of Counties, the National Association of Towns and Township Officials, the Council of State Planning Officials, and (for industry-oriented programs) the National Association of State Development Agencies. See Appendix B for a brief description of each of these associations. The major action-oriented concerns of these associations are seldom of a nature that can be addressed with a technological fix, and NASA officials approaching these groups and their national staffs must recognize that they normally will not give NASA anything close to center stage on any agenda: that is reserved for the legislatively-oriented policy issues involving fundamental questions of Federal-state relations which are the principal reasons for the existence of these national associations. It is not clear that it would be in NASA's interest to get in the middle of these intergovernmental debates. The caveat on national associations presented in Part 3 of Chapter IV, Volume 1, applies equally to efforts to benefit industry in cooperation with the states and to efforts to apply technology to meet state and local needs. The one current opportunity for discussing possible new program relationships with the states through one of these associations is presented in the next chapter.

Chapter III

Centers of Excellence and Other Advanced Development Programs

As noted in Volume 1, efforts are being made by some Federal R and D managers to leverage with their own resources the significant state/university/industry funding pools being pulled together for "centers of excellence" and for specific advanced technology development programs.

Since the state interest is job creation through the new economic activity expected to flow out of these centers, or other programs, they include a built-in commercialization element. This provides a new type of opportunity for Federal technology transfer managers: helping the "mainstream" R and D managers invest their development funds in settings which will accelerate and enhance the application of the development, while gaining funding leverage and potentially broader popular and political support.

Thus, we suggest as a part of this plan that an inventory be conducted early in FY 1987, by the follow-on contractor for this study, of the technical programs being carried out by the state-funded centers of excellence. This then would be reviewed by or for the Director of the NASA TU program, possibly with the assistance of each Field Center TUO, to determine which of the state-sponsored centers are involved in technologies which NASA also is seeking to develop or

transfer. Some of these programs could prove to be useful partners in NASA Technology Applications (or Applications Engineering) projects. Appropriate discussions would then be arranged to bring these center of excellence programs to the attention of the cognizant NASA R and D program chiefs as opportunities for program fund leveraging. As a contribution of TU to other NASA programs, this could be significant. By the same act, it would help facilitate the future rapid commercialization of NASA sponsored technological advances.

At the same time, the Director of the NASA TU program, with support from the follow-on contractor, should become a regular Federal contributor to the considerations of the NGA's Working Group on Applied Research. A brief explanation of that group's focus and concerns is attached following the preliminary agenda of its first meeting, as Appendix C to this Volume 2. The group's members are drawn from the officials listed in Appendix A to Volume 1 of this report. While that group will deal with the full range of state interests in technology transfer, its primary emphasis will be on issues associated with cooperative sponsorship of applied R and D in the centers of excellence and similar programs. Contractor is available to help, if and as needed, in developing this relationship.

Chapter IV

Additional Recommendations

Our discussions with current and prospective network participants over the past seven months have led to the identification of several features of the existing program which seem to warrant continuing review. We have yet to find a politically-based system which is highly efficient in a functional sense, and therefore do not suggest that these program features can be quickly or easily changed or improved. However, they appear to be the most vulnerable or least useful aspects of the present system, and bear watching and consideration of alternatives specifically to assure that they do not impede the objective of widespread dissemination of aerospace technology to U. S. industry.

1. IAC territorial responsibilities are not wholly consistent with two critical matches: (a) a particular IAC's product capabilities and the industry needs in its territory; and (b) a particular IAC's networking capabilities and the networking opportunities in its region. This was recognized when the February 1986 assignments were made, and the NASA TU program officials plan to reevaluate those assignments based on performance in FY 1987 and again in FY 1988. The assignments were made, as we understand, with the provision that the covering IAC is responsible for seeing that useful services

from throughout the network are delivered in its region, and not necessarily for providing those services itself. We believe this system can work. However, program leaders need to keep a continuing eye on it with a view to encouraging cooperation and minimizing that degree of competition or conflict which could be detrimental to users' views of the program.

2. The remote sensing roles of the NASA Technology Applications Center at Albuquerque and the Space Remote Sensing Commercialization Center at NSTL are somewhat, but not entirely, duplicative. TAC, being older, has a more fully developed in-house capability to meet industry needs, but the new Mississippi activity has more available dollars plus direct on-site access to NSTL's in-house staff and support contractor talent, and the responsibility to make going businesses out of remote sensing services. The idea that the two should work together has been on the table for the past year, without a clear fix on the ways in which they might do so. As TAC redevelops its capacity to serve as a general purpose IAC, and becomes less dependent on the remote sensing services which have been its bread and butter for several years, we suggest that TAC take steps to attempt to translate all or part of its remote sensing services into one or more viable businesses and that the commercialization center support and assist in it doing so. By the same token, those services which cannot be commercialized should be left to TAC. The alternative, we believe, will be a competition which breeds confusion in the marketplace and impedes both efforts. The recently established dialogue between the two should be continued and expanded.

3. Funding for the IACs and their outreach efforts has come, historically, from NASA appropriations, state or university contributions and users fees. The latter have been in the form of direct payment on current accounts. There never seems to be enough available from any and all of these sources. In networking for dissemination through state-sponsored assistance centers, the IACs are linking with institutions which have other ways of getting paid for their efforts: certificates of debt or equity which represent a capital investment in the assisted enterprise. We recommend to all IAC directors that they explore during the next year the risks, benefits, alternatives, and implications of such additional long-term revenue sources.

4. Several areas of the nation's industrial base which have been under-served by NASA warrant special developmental attention. Three of the most obvious are the Missouri Valley, the Upper Mississippi Valley, and the Central Gulf Coast (especially its minority business interests). Each of these has its own unique social, economic, industrial and political climate. Two have existing activities which are at least in the planning stage which may lead to a resolution of the deficiency. The third is anchored by a state (Minnesota) which is following its own unique-among-the-states reliance on private industry in its efforts to rejuvenate its industrial technology base, and could help provide an additional experimental model for NASA technology transfer if properly approached.

- a. In the Central Gulf Coast, NASA is exploring the possibility of establishing a new IAC to be based in an historically minority university and to have a special role in reaching minority enterprise across the Gulf States. At last report, this effort will take some two years to reach general operational capability. In the meantime, the industrial base of that region and the state-supported efforts in Mississippi are ripe for active networking with the IAC system. It seems most reasonable to us to allow an existing IAC (STAC) to develop networked service relationships in the two states principally involved -- Mississippi and Louisiana -- with the clear understanding that they will be transferred over to the new, prospective locally-based IAC when and as it develops the capability to support them. This will have the dual advantage of meeting the existing needs of those states on a timely basis while developing for the new IAC an existing outreach network and customer base which it can assume as it begins to operate.
- b. In the Missouri Valley, the State of Missouri has pieced together one of the most comprehensive sets of programs in the nation for the upgrading of its industrial technological strength. It has a young but solid set of four multi-service innovation centers,

a cooperating Small Business Development Center with nine statewide offices and a technology orientation, and some technical information search capability. It is interested in upgrading this latter capability, in connection with the innovation centers and SBDC into a sort of mini-IAC (or major branch of ARAC) oriented toward small and entrepreneurial business and the medium-scale metals and food processing industries not only in Missouri, but also in eastern Kansas, Nebraska, and Iowa, on a trial basis. These are industrial sectors, and this is an area which ARAC is not or has not been organized to serve. The Missouri capability could serve as a natural base for the networking of ARAC support across the "outer Midwest" for which it is responsible but which it has never significantly served.

- c. Minnesota, the hub of the Upper Mississippi Valley, has adopted the most heavily private-sector based -- yet centrally coordinated -- approach to stimulating industrial technology improvement. In short, it seeks to arrange for the provision of needed services for industry through commercial avenues to the greatest degree possible. Our recommendation is that NASA, through ARAC (which has service responsibility for the area), explore with Minnesota leaders,

(public and private), during FY 1987, the feasibility of developing or employing a profit-making local service front for technological assistance to include IAC services. At least one Minneapolis firm, Tel Tech Resource Network, is attempting to establish a business of this type, is already a subscriber to the RIS services of the USC NIAC, and is known to be interested in a closer relationship to the NASA system. It is our understanding that ARAC and Tel Tech Resource Network have had preliminary discussions in this direction.

MEMORANDUM OF UNDERSTANDING

Among

THE COUNCIL OF STATE GOVERNMENTS

UNIVERSITY OF KENTUCKY

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Date:

The purpose of this memorandum is to formalize certain cooperative programs involving the Council of State Governments, The University of Kentucky, and NASA. The memorandum spells out the research and public service efforts and responsibilities of the respective organizations as they relate to the cooperative programs. The cooperative programs are designed to build on existing strengths of the organizations as they carry out their missions of serving the public sector and state and local governments within the United States.

In cooperation with the Council of State Governments and NASA's Technology Utilization Program, the Martin School of Public Administration of the University of Kentucky, through the NASA/UK Technology Applications Program will provide access to information and data bases and also provide assistance to the extent possible, as requested by CSG staff and users referred by the Council. Using its management information and client evaluation system, NASA UK/TAP will provide periodic reports on client contacts, services requested, and types of assistance provided to any users referred by the CSG.

The three organizations agree further to work together in efforts to sponsor and conduct national and regional conferences, seminars, and meetings of mutual interest. The first such effort involves cooperation of the three organizations with the Federal Laboratories in joint sponsorship of the May, 1987 meeting of the Federal Laboratory Consortium to be held in Lexington, Kentucky.

At the present time, it is not anticipated that this cooperative program will require additional resources from any of the organizations. However, if additional resources are required at a later date, the organizations will negotiate a new memorandum of agreement to reflect the increased financial commitments as well as any changes in responsibilities that may be required to implement the revised program. Furthermore, a significant part of this cooperative program will be to explore the possibilities for applying aerospace technologies to specific widespread needs of state and local governments. It is envisioned

that this effort will result in proposals for technology applications projects which will require supplemental agreements and additional funding. These proposals and associated agreements will be developed and processed as the circumstances warrant, and will provide for the approvals of the parties hereto.

This agreement will continue until renegotiated by the parties or until terminated by any one of the parties upon 90 days prior notice in writing to the others.

For the Council of State Governments _____

For the University of Kentucky _____

For NASA _____

BRIEF DESCRIPTIONS OF THE
PUBLIC INTEREST GROUPS
MOST IMMEDIATELY RELEVANT TO
NASA TU PROGRAM INTERESTS

The National Governors' Association is the official consensus organization for the governors of the 50 states and the several territories. Headquartered at the Hall of States on North Capitol Street, N.W., Washington, D. C., it operates with a structure of committees and supporting staff offices which can address broad areas of overlapping national and state government interests (transportation, health, technology, etc.). For each committee, the member governors provide senior aides as a staff advisory group (SAG) on the same topic, and these two groups will share staff support from the Washington office. The key working contact will normally be the chairperson of the SAG, who will be the SAG representative of the Governor who chairs the committee.

The National Conference of State Legislatures is the largest national consensus and information exchange body for state legislators. Like the NGA, it operates through a committee structure. However, its central staff and its members' committees work more closely together, since it has no intermediary staff advisory groups. It has less representational ability than NGA, since its legislator participants are not the sole voices of their respective states, and do not participate under strict rules of representation. Thus, NCSL

combines a heavy emphasis on the education, training and informing of its members with occasional displays of personal political ambition directed to specific topics or issues by individual members who see opportunities to exploit. It maintains an office in the Hall of States in Washington, D. C., but its headquarters are in Denver, Colorado. Its national posture on social issues and intergovernmental relations over the past several decades led to the formation of the more conservative American Legislative Exchange Conference (ALEC). However, ALEC does not operate in a pro-active mode in areas outside its major issue concerns.

The Council of State Planning Agencies represents the senior across-the-board planning assistants to the governors. Although many of these are professionals -- careerists in governmental service (although they tend to move from state to state and back and forth among national, state and local governments during their careers) -- they are primarily focused on support of the political interests of their employing governors. The Council's offices therefore are adjacent to the NGA's offices in Washington, D. C. Its concerns weave through the matrix of NGA's structure, and tend to be relatively short-term and issue-oriented.

The National Association of State Development Agencies is the coordinating group for the state directors of economic development. While many of these officials are professionals, and their departments incorporate a range of sub-specialties

(tourism, exports, plant siting, industrial development bonding, etc.) their field is one in which governors maintain an intense personal, political interest. Thus, NASDA maintains a committee structure which supports interstate coordination and interchange on both policy and professional/technical matters. Many, if not most, of the highly political concerns of its members are concerns of their employing governors, and naturally gravitate to the National Governors' Association. This leaves NASDA free to focus more heavily on support of state economic development operations. (A recent example is its establishment of the capability to integrate industrial revenue bonds from multiple state and localities into investment packages which will receive more favorable attention from investors than would the individual issues.) NASDA is headquartered in the Hall of States in Washington, D.C.

The Council of State Governments (CSG) is a conglomerate or umbrella organization for many of the national associations of two types of state officials. The first of these might be called the second-level state elected officials (lieutenant governors, attorneys general). The second are operating officials, usually having career professional status (state information systems executives, as an example). The second group excludes, however, the associations of state professional officers whose functions are closely tied to the political interests of most of the governors (state planning agencies, and state economic development officials), as well as of some major state operating officials whose programs are funded heavily from

Washington, D. C. (state highway and aviation officials, for example). CSG is headquartered on Iron Works Pike, Lexington, Kentucky. While it does not serve as a major representative or consensus organization for governors and legislators, CSG's policy structure is dominated by these two types of state elected officials.

The U.S. Conference of Mayors is the national association of the mayors of the largest cities in the nation. Many, but by no means all, of its members are executive mayors. The Conference was organized in the 1930s to help develop the national consensus of city leaders on Federal government policies affecting their cities. It has a history of favoring direct Federal-city relationships, independent of the states, and is heavily oriented in its work program toward influencing Federal legislation. Action is through resolution adopted at the Conference's annual meeting. These are developed through a sizable committee structure, supported by a staff headquartered on Eye Street, N.W., in Washington, D. C.

The National League of Cities is the largest national association of municipal governments. It includes many cities whose mayors are members of the U.S. Conference of Mayors, but it serves the other elements of those governments -- especially the city councils -- as well. Its concern for issues reflects its larger membership base, and tends to stress more of the long-term, generic operating needs of municipal government. It is apparently for this reason that it has been one of the strongest

continuing supporters of Public Technology, Inc. (PTI), and is headquartered in the same building with PTI on Pennsylvania Avenue, N.W., in Washington, D. C. The affiliates of NLC include not only its member cities, but the state municipal leagues whose origins go back to the municipal reform movements in the early years of this century. This gives the NLC a strong bias toward rationalism, vis a vis mass politics.

The National Association of Towns and Township Officials paradoxically represents potentially the largest proportion of local governmental units in the U.S., numbering in the thousands, but a relatively small minority of the nation's population. As a result, its concerns are for the basic services which its members provide to their citizens (and which differ somewhat from state to state). Its interests are tied to the relatively small scale and low budgets on which these governmental units operate. It is headquartered in Washington, D. C.

The National Association of Counties is the organization of county government officials which parallels the National League of Cities. Its staff is headquartered in Washington, D.C. It effectively has two relatively distinct sets of members: the urbanized counties whose powers parallel those of cities and who share their concern for land use issues; and the rest of the counties, which have widely varying powers from state to state, built around infrastructure (roads, especially), social welfare, and the courts.

NGA STATE APPLIED RESEARCH WORKING GROUP
Hall of the States
444 N. Capital Street
Rooms 263 & 265
Monday, May 12, 1986 through Tuesday, May 13, 1986

Preliminary Agenda

Monday, May 12

9:00 - 10:00 Registration and Coffee

10:00 - 10:30 Introduction
Chris Coburn
Deputy Director
Ohio Department of Development

10:30 - 12:30 State Sponsored Applied Research Consortium
Panel: Walt Plosila, Deputy Secretary for
Technology & Policy Development
Pennsylvania Department of Commerce

Ed Cohen (NJ)

Paul Phelps, Director, Utah Center
of Excellence Program
NC Representative

Institutional links corporate and academia
- patent rights
- proprietary protection
- problem areas

Measuring performance
- short term
- long term

Funding level
- one-time support
- sustaining support

12:30 - 1:30 Lunch
Don Phillips, Staff Director, Government
University Industry Roundtable

1:30 - 3:00

State Seed/Venture Capital Programs

Panel: Burt Jonap (CT), Chair
Don Wellman (IN)
Jamie Kenworthy (MI)
John Hodgeman (MA)

Type of State Support

- equity
- grant
- loan

Portfolio management

- choosing technology focuses

Review strategy

- internal staff & technical review

Confidentiality

- balancing Freedom of Information
with proprietary needs of business

Performance measures

- short term
- long term

3:00 - 3:15

Break

3:15 - 4:30

"Creating Entrepreneurs: What Needs to be Done"

David Morgenthaller, Senior Partner,
Morgenthaller Ventures, former President,
National Venture Capital Association

5:30 - 7:30

Reception

FOCUS

The group will discuss and analyze the specifics of program implementation and address federal policies and legislation which will affect state programs. Potential issues to be addressed are listed in the following pages. These points are presented to stimulate discussion regarding a potential agenda. Suggestions, changes or corrections are encouraged.

Consortium Concerns

States have taken different steps to resolve proprietary and publishing concerns in university/industry consortiums. The success of these entities is directly related to their ability to resolve the questions of patent rights, licensing arrangements, disclosure provisions, etc. Some consortia have been more successful than others at resolving these fundamental issues. The group should examine several of the models.

Performance Measures

The fundamental measure of the effectiveness of state economic development programs has always been job creation or retention. Most applied research programs were created in response to the 1981-82 recession and were sold to legislatures with the promise of increasing employment levels. Although job creation/retention is important, it is not a suitable short term measure for programs with a long term focus. The working group should identify alternative measures for more accurate assessment of program success.

Congressional Activities

Amendments to the 1980 Stevenson-Wydler Act are working their way through both the U.S. House and Senate. Stevenson-Wydler mandated technology transfer activities at all federal laboratories to assure that government sponsored innovations find their way into the economy as quickly as possible. Included in the amendments are provisions which encourage closer ties between federal laboratories and state and local agencies promoting technology based industrial development. Another upcoming federal legislative effort of special interest to state programs is the pending reauthorization of the Small Business Innovation Research (SBIR) program.

The group should address both bills, any necessary changes reauthorization strategies and supporting state efforts to increase SBIR awards. Discussions with appropriate congressional representatives is envisioned.

Upcoming Federal Initiatives

The Reagan Administration has begun to signal its desire to establish, through the National Science Foundation (NSF), major federally-supported university/industry applied research consortiums. The impact of the proposal on state programs should be addressed. Measures to assure cooperation rather than competition should be explored. An NSF briefing is anticipated.

Freedom of Information/Confidentiality

Weighing the public's right to know against the private sector's need to maintain proprietary information is imperative for state programs. Attaining a proper balance should be discussed.

Funding Philosophy

Most state applied research programs ascribe to a philosophy antithetical to the traditional functioning of state government -- funding high quality technologies rather than distributing funds geographically. States have developed varying mechanisms to allocate these funds. These and alternative approaches should be reviewed.

Portfolio Management

Several states have investment strategies designed to reflect strengths and needs. Development and implementation of investment strategies should be examined.

Staffing & Technical Review Process

Obtaining sophisticated technical reviews on a limited budget is a challenge facing every state program. The use of unpaid peer reviews, technical consultants and other alternatives should be explored.